What is claimed is:

1. A film forming apparatus for supplying process solution to a substrate, spreading out the process solution on the substrate, and forming a film of the process solution on the substrate, comprising:

driving means for rotating the substrate,

wherein said driving means has:

a main driving mechanism,

an auxiliary driving mechanism for assisting the driving of said main driving mechanism, and

controlling means for causing the operation time of said assisting driving mechanism to overlap with the operation time of said main driving mechanism.

2. The film forming apparatus as set forth in claim 1,

wherein said auxiliary driving mechanism is composed of a plurality of auxiliary driving mechanisms.

3. The film forming apparatus as set forth in claim 2,

wherein said plurality of auxiliary driving mechanisms have different gear ratios.

4. The film forming apparatus as set forth in claim 2,

wherein the operation times of the plurality of auxiliary driving mechanisms at least partly overlaps.

5. The film forming apparatus as set forth in claim 1,

wherein the gear ratio of said auxiliary driving mechanisms is larger than the gear ratio of said main driving mechanism.

6. The film forming apparatus as set forth in claim 3,

wherein said controlling means successively operates the plurality of auxiliary driving mechanisms in the order of larger gear ratios.

7. The film forming apparatus as set forth in claim 6,

wherein said controlling means operates said main driving

mechanism before operating the auxiliary driving mechanism with the largest gear ratio.

8. The film forming apparatus as set forth in claim 1, further comprising:

a cup disposed around the substrate; and

a cup driving mechanism for rotating said cup.

9. The film forming apparatus as set forth in claim 8, wherein said controlling means sets a desired revolution speed of said cup corresponding to the revolution speed of said main driving mechanism and/or the revolution speed of said auxiliary driving mechanism.

10. The film forming apparatus as set forth in claim 9, wherein said controlling means stops said auxiliary driving mechanism while operating said cup driving mechanism and said main driving mechanism.

11. A film forming apparatus for supplying process solution to a substrate, spreading out the process solution on the substrate, and forming a film of the process solution on the substrate, comprising:

driving means for rotating the substrate;

wherein said driving means has:

a main driving mechanism,

an auxiliary driving mechanism for assisting the driving of said main driving mechanism, and

controlling means for causing said auxiliary driving mechanism to operate at least part of an acceleration region of said main driving mechanism.

12. The film forming apparatus as set forth in claim 11, wherein said auxiliary driving mechanism is composed of a plurality of auxiliary driving mechanisms.

13. The film forming apparatus as set forth in claim 12,

wherein said plurality of auxiliary driving mechanisms have different gear ratios.

14. The film forming apparatus as set forth in claim 12, wherein the operation times of the plurality of auxiliary driving mechanisms at least partly overlaps.

15. The film forming apparatus as set forth in claim 13, wherein the gear ratio of said auxiliary driving mechanisms is larger than the gear ratio of said main driving mechanism.

16. The film forming apparatus as set forth in claim 13, wherein said controlling means successively operates the plurality of auxiliary driving mechanisms in the order of larger gear ratios.

17. The film forming apparatus as set forth in claim 16, wherein said controlling means operates said main driving mechanism before operating the auxiliary driving mechanism with the largest gear ratio.

18. The film forming apparatus as set forth in claim 17, further comprising:

a cup disposed around the substrate; and

a cup driving mechanism for rotating said cup.

19. The film forming apparatus as set forth in claim 18, wherein said controlling means sets a desired revolution speed of said cup corresponding to the revolution speed of said main driving mechanism and/or the revolution speed of said auxiliary driving mechanism.

20. The film forming apparatus as set forth in claim 9, wherein said controlling means stops said auxiliary driving mechanism while operating said cup driving mechanism and said main driving mechanism.

21. A film forming method, comprising the steps of:

supplying process solution to a substrate;

rotating the substrate at a predetermined revolution speed;

spreading out the process solution on the substrate; and

forming a film of the process solution on the substrate,

wherein the rotation of the substrate is accelerated in at least part of an acceleration region of the predetermined revolution speed by a plurality of driving mechanisms.

22. The film forming method as set forth in claim 21,

wherein the plurality of driving mechanism are a main driving mechanism and at least one auxiliary driving mechanism for assisting the driving of the main driving mechanism.

23. The film forming method as set forth in claim 22, wherein the auxiliary driving mechanism is stopped before the substrate is rotated at the predetermined revolution speed.

24. The film forming method as set forth in claim 21,

wherein a cup disposed around the substrate is rotated corresponding to the predetermined revolution speed.

25. The film forming method as set forth in claim 21,

wherein after the rotation of the substrate is accelerated, the auxiliary driving mechanism does not assist the driving of the main driving mechanism in a deceleration region.

26. The film forming method as set forth in claim 22,

wherein the auxiliary driving mechanism is composed of a plurality of auxiliary driving mechanisms, at least one of auxiliary driving mechanisms operating.